

Appendix A

Brookhaven National Laboratory

Management Systems Improvement Program (MSIP)

PROGRAM DESCRIPTION

Introduction/Background

The Department of Energy (DOE) Office of Environmental Safety and Health (EH) conducted an Integrated Safety Management Evaluation (ISME) of Brookhaven National Laboratory (BNL) from February through April 1997 and issued their report in April 1997. The report found that “significant management attention” is needed to remove barriers that are impeding improvements in environmental, safety, and health (ES&H) programs and performance at the Laboratory.

In March 1997, the Director of BNL appointed an internal Committee to review the Laboratory’s ES&H decision-making process and make recommendations for the improvement of the Laboratory’s ES&H programs. This Committee was headed by the Chair of the Department of Advanced Technology (DAT) and included a member of the Suffolk County Department of Health Services (SCDHS).

Foremost among the responses to these reports from Associated Universities Inc. (AUI) and BNL, were management changes, announced on April 28, 1997. AUI appointed an Interim Director, an Interim Deputy Director for programs, and created a new position at BNL, a Deputy Director for operations, with emphasis on ES&H programs and performance. This interim management team, with the assistance of a consultant, P. Rice, developed a holistic approach to implementation of the changes that would be needed to correct the deficiencies in the Laboratory’s management systems. The approach, called the BNL Management Systems Improvement Program (MSIP), was first presented to DOE Headquarters, on May 13, 1997.

MSIP Goals

The goals of the MSIP are to:

Consolidate all actions needed to respond to the DOE ISME Report, the DAT Report, as well as other recognized opportunities for improvement, into a single program, which can be managed at a high level.

Ensure that all activities are appropriately scheduled and required resources identified

and allocated, so that all actions are carried through to completion.
Develop a framework for partnering with DOE on improvements to BNL ES&H programs.
Improve Laboratory Leadership and management systems.
Regain the trust and confidence of the Long Island Community.
Supplement existing BNL ES&H programs and create new programs as required to implement Integrated Safety Management (ISM) at BNL.
Achieve “best in class” performance in ES&H at BNL.

Organization

The MSIP is organized into three initiatives: Leadership, Communications, and Integrated Safety Management Systems. These initiatives were developed through a process of summarizing the individual findings of the ISME and DAT reports and binning each of them into a category. Additional actions, recognized as needed by BNL senior leadership, were then added and the categories evolved into the three initiatives.

The traditional project management approach is used to structure the MSIP. A work breakdown structure (WBS) defines the scope of the program and a WBS Dictionary explains all elements in detail. A team of senior managers is assigned to each Initiative and a BNL staff member to each lower level element. The WBS-based schedule is developed for each WBS element at Level IV and resource-loaded to ensure feasibility within the resources available to the Laboratory. These individual Level IV element schedules are then rolled-up to form the overall, (or Level I) MSIP schedule.

The MSIP envisions an ongoing partnership between BNL and DOE. As a result, a process of formal approval by BNL and DOE senior leadership is a part of the MSIP approach, as is a formal baseline change control process. The MSIP is also a part of the Office of Energy Research (ER) *DOE Action Plan for Improved Management of Brookhaven National Laboratory* and will be fully integrated with the other initiatives contained within that Plan to improve ER’s stewardship of BNL as well as the other ER national laboratories.

The Leadership Initiative

The Leadership Initiative includes high-level leadership actions needed to revitalize the management of the Laboratory. Included is a sub-initiative on Performance-Based Management which will develop core values, update the mission and vision statements and core competencies of the Laboratory, and improve the strategic planning process. The current performance measures used by DOE and BNL will be revitalized to improve their overall relevance to the mission and to focus more sharply on ES&H performance. The Laboratory’s employee evaluation/reward mechanisms will be studied, and a new program for development

of the Laboratory's future managers and leaders will be implemented.

The organization of the Laboratory, as well as external resources important to the Laboratory's success, are also a key part of the Leadership Initiative. Included are formation of a new Directorate structure, a Leadership Council, and an ES&H Management Advisory Group. The latter group will include federal, state, and local regulators in the near term and community members in the long term.

New operational concepts will be studied and roles and responsibilities among all levels of senior management will be clarified and documented. The system of standing and ad hoc Committees in the ES&H area will be examined. A system of Peer Review for support organizations will be developed to bring "best commercial practices" to all non-scientific processes at the Laboratory. This system will parallel the highly successful AUI Visiting Committee system for program reviews.

The DOE/EH Mentoring Program will be a valuable asset to BNL's efforts to achieve ES&H excellence, and the Leadership Initiative includes the high-level planning and support for this program.

The Leadership Initiative also encompasses the planning and development of the MSIP structure.

Communications Initiative

The focus of this Initiative is to regain the trust and support of the Long Island community. The communications infrastructure at BNL will be significantly strengthened through the actions included. Communications planning is the first focus, with the development of near-term plans for FY97 and FY98 communications actions as well as for HFBR restart. Short-term plans for public affairs/community relations staff development and an update of the Laboratory's Crisis Communications Plan are also included.

New, recurring planning processes will be put in place to include an annual Operations Plan and a Strategic Plan which will develop actions needed to support the initiatives in the Laboratory's Institutional Plan.

A Communications Management System will be developed which will consolidate current policies and procedures and make additions and revisions as necessary. In addition to communications-specific processes, performance-based management and personnel management systems will be also be developed.

A full spectrum of informational databases will be created to provide a resource for Public Affairs/Community Relations staff, as well as Laboratory management. These databases will facilitate rapid dissemination of news about BNL activities, provide an

opportunity for feedback, and ensure the most effective avenues of communication are used with each stakeholder.

Resource materials, available for all Laboratory and DOE communicators, will be prepared in the form of a questions and answers database, presentations, and key issues, programs, and projects database. The training needs of all communicators will be addressed through a program of courses to be developed under this initiative.

Integrated Safety Management Systems Initiative

All actions needed to fully implement Integrated Safety Management (ISM) will be accomplished under this initiative. The three-tier Self Assessment process used at the Laboratory will be an early focus of the MSIP. With the assistance of DOE/EH mentors, this program will be expanded and focussed at the employee level to enhance the process of individual ownership of safety in the workplace. Key interfaces between the self-assessment process and information management systems, the commitments and corrective action tracking system, and planning and budgeting processes will be developed and upgraded.

The Commitment and Corrective Action Tracking System (CCATS) which has been in the pilot stage at BNL will be fully implemented. Data requirements, access requirements, roles and responsibilities for system use and maintenance, and interfaces to other BNL management systems will be developed and put in place.

BNL's Priority Assessment System will be closely reviewed and redesigned. Prioritization methods at other DOE and private sector facilities will be benchmarked. The ES&H Management Advisory Group will be brought into the process and a new process description and procedures set will be developed. The process used by BNL for internal budgeting of ES&H needs will also be substantially revised. This activity will be integrated with DOE activities to reform the Office of Energy Research (ER) processes for infrastructure and ES&H stewardship.

Work Planning is recognized as a pivotal activity in ensuring worker safety and health as well as protection of the environment. Under this initiative, the Laboratory will map its current programs that use the five core functions of work planning and identify missing elements, or "gaps." Specific actions will be developed to ensure incorporation of these core functions into the planning and execution of all work activities at the Laboratory; both research and routine work.

Improvement of the Laboratory's training program will be a key part of this initiative. The site-wide training database will be brought on line and the current status of the training program will be documented. User training will be reviewed and improved, and new training needs identified and met. The Laboratory's organizational structure for training will be

revisited and roles and responsibilities for training will be revised as needed. There will be a special focus on the quality, and effectiveness of training.

An ES&H Standards and Requirements set appropriate for the work performed at the Laboratory will be developed. A process similar to that used at Lawrence Berkeley National Laboratory (LBNL) or the Thomas Jefferson National Accelerator Facility (TJNAF) will be employed.

Integration of key ES&H management information systems will be another major effort under this initiative. Activities will include an identification of existing systems, a review of gaps in those systems and improvements to better integrate the data and to make it accessible to those who can directly affect it, as well as to Laboratory management at all levels. Roles and responsibilities for support of the systems will be developed.

The Laboratory's Environmental Management System will be reviewed and improved. The Environmental Protection Agency (EPA) will play a key role as will senior Laboratory management. Actions to respond to findings from the EPA multimedia inspection are included here, as are the Phase II and III audits by EPA.

Summary

The BNL MSIP represents a major revitalization of the management of the Laboratory at all levels and underscores a commitment on the part of BNL leadership to achieve a permanent change in the culture of the Laboratory. The accomplishment of the work outlined under this program will create a comprehensive ES&H infrastructure which will fully meet all stakeholder expectations and achieve world class ES&H performance at Brookhaven.

BNL Management Systems Improvement Program (MSIP)

LEADERSHIP INITIATIVE

Work Breakdown Structure Dictionary

WBS 1.1 Leadership Initiative:

This Initiative of the BNL Management Systems Improvement Program (MSIP) contains the leadership and management actions, systems, products, and resources necessary to provide a clear leadership mandate for permanent cultural change at the Laboratory and a strong institutional management framework. Completion of all elements of this Initiative will provide BNL and DOE leadership with a forefront, performance-based management system, able to meet the challenges of achieving excellence in both environmental, safety and health and scientific performance.

WBS 1.1.1 Performance-Based Management

This item describes a system of products and programs that will be the principal elements of the Laboratory's system of institutional management for the future and the tools for future leadership.

WBS 1.1.1.1 Core Values: The Laboratory will establish the core values that describe the basis for individual and institutional behavior and decision-making.

WBS 1.1.1.2 Mission and Vision Statements: The Laboratory's current Mission and Vision Statements will be reviewed, revised, and integrated with the other elements of the performance-based management system.

WBS 1.1.1.3 Core Competencies/Key Success Factors: The existing core competencies set will be reviewed. The key success factors which describe the unique capabilities of the Laboratory that set it apart from competitors, will be articulated and documented.

WBS 1.1.1.4 Strategic Plan: The strategic planning process will be revised and expanded. Current and new planning processes and Plan documents (Integrated Facilities Plan, ES&H 5-Year Plan, Communications Strategic Plan) will be integrated with the DOE Strategic and ER Institutional Plan process.

WBS 1.1.1.5 Performance Measures: Existing contractual performance measures will be reviewed internally and with DOE, and revised as appropriate.

Lower level internal measures will be developed where needed, with an emphasis on predictive measures of environmental, safety and health performance. Performance data will be made more accessible to all Laboratory employees.

WBS 1.1.1.6 Performance-Based Evaluation/Reward System: The Laboratory's current evaluation/reward system will be reviewed and revised as needed. Revisions made for the FY97 cycle will be analyzed and improved. Performance goals keyed to Laboratory core values and performance measures will be developed for senior leadership and deployed throughout the organization. Compensation for senior leadership will be more closely tied to measurable performance.

WBS 1.1.1.7 Management Development Program: A management training hierarchy will be developed covering all levels of Laboratory management. A Management Internship/Mentoring Program will be developed to broaden the experience of lower level managers and technical personnel and to prepare them for future advancement.

WBS 1.1.2 Organization

This item covers changes in institutional management structure, roles, and responsibilities, and development and enhancement of both internal and external technical advisory resources to Laboratory management.

WBS 1.1.2.1 BNL Organization: This element covers all organizational actions and changes within the Laboratory.

WBS 1.1.2.1.1 Directorate: Appointment of the Interim and permanent Director, and Interim and permanent Deputy are included. Also included are development of roles and responsibilities and performance measures and goals for each position.

WBS 1.1.2.1.2 Leadership Council: A Leadership Council will be formed to engage all senior leaders in institutional management decision-making. A charge, charter, and operating procedures will be developed for the Leadership Council.

WBS 1.1.2.1.3 Associate/Assistant Directors: A new concept of operations will be developed, and the authority, roles and responsibilities of the ADs relative to the Director, Deputy and

Department Chairs will be defined and clarified.

WBS 1.1.2.1.4 BNL Organizations: Restructuring of the Laboratory as appropriate will be accomplished. Reporting and information transfer mechanisms will be developed and documented. The revised roles of the Leadership Council and the ADs will be integrated into the framework of Laboratory management systems.

WBS 1.1.2.1.5 ES&H Committees: The structure of the system of ES&H committees used by the Laboratory for review and technical advisory services will be reviewed and revised as appropriate. The authorities, roles, and responsibilities of the committees, their interrelationship, and the flow of information between them and Laboratory management will be upgraded.

WBS 1.1.2.2 External Resources: This item covers all changes and resources external to the Laboratory.

WBS 1.1.2.2.1 ES&H Management Advisory Group: An ES&H Management Advisory Group (ESHMAG) will be created to bring outside stakeholders into the ES&H decision-making process at the Laboratory. A charge and charter will be developed. Outside regulatory agency representatives and elected officials will be involved initially and will be charged to develop a mechanism for public involvement.

WBS 1.1.2.2.2 Support Organization Peer Review Process Organizations: A peer review process to build on the DOE Business Management Oversight process will be developed. Experienced outside professionals in the various non-scientific functions at the Laboratory will be brought in to review and improve BNL's performance in these areas. Patterned after the Visiting Committee system, this system will bring new ideas and improved performance and efficiency.

WBS 1.1.2.2.3 DOE/EH Mentor Program: The EH Mentor program will provide assistance to various elements of the MSIP WBS. The management, administration and budgeting for this program are covered under this element.

WBS 1.1.2.2.4 Consultant Support: The various efforts under the MSIP will require support from a variety of external consultant resources. The management, administration and budgeting for this support are covered under this element.

WBS 1.1.3 Management Systems Improvement Program (MSIP):

The establishment and ongoing management of the MSIP as a project are covered under this element. Scope, project organization, cost and schedule, and Project Management Plan development are included.

WBS 1.1.3.1 Program Description: A summary document will be developed to briefly describe the entire scope of the MSIP.

WBS 1.1.3.2 Work Breakdown Structure (WBS): The scope of the MSIP will be established initially and controlled subsequently through a conventional WBS for the program. A WBS dictionary describing all elements of the program will also be prepared.

WBS 1.1.3.3 Organization/Staffing: The staffing, authorities, roles and responsibilities and reporting relationships for the full-time program management staff will be developed and documented. An organization chart will be developed and positions filled.

WBS 1.1.3.4 Schedule: The schedule for the MSIP WBS elements will be developed and resource-loaded.

WBS 1.1.3.5 Budget: The costs by fiscal year will be developed for the MSIP from the resource-loaded schedule. Necessary internal budget actions will be accomplished.

WBS 1.1.3.6 Management Plan: A Management Plan for the MSIP will be developed. Change control, approval levels, and reporting relationships will be developed.

BNL Management Systems Improvement Program

COMMUNICATIONS INITIATIVE

Work Breakdown Structure Dictionary

WBS 1.2 Communications Initiative

This Initiative of the BNL Management Systems Improvement Program (MSIP) contains all Public Affairs and Community Relations systems, products, and resources necessary to rebuild and sustain public trust and confidence in the Laboratory and its programs. Completion of all elements of this Initiative will provide BNL and DOE with a professional communications infrastructure, fully capable of meeting the needs of the sophisticated Long Island community, for the future.

WBS 1.2.1 Communications Planning

This item describes a system of planning for the near term and out-year communications needs of the Laboratory. Included are Plans that will be produced for the first time as part of the MSIP, but will continue to be updated and published annually.

WBS 1.2.1.1 Strategic Communications Plan: The Strategic Plan (SP) will be an annual document, produced in conjunction with the Laboratory's Institutional Plan, and containing all communications actions needed to support the initiatives included in the Institutional Plan for the 5 year period. The SP will develop an outline strategy for supporting each initiative and will identify early actions, which may be required to be included in the annual Communications Plan.

WBS 1.2.1.2 HFBR Restart Communications Plan: This Plan will serve as a "crosscut plan" to consolidate all communications activities necessary to support the restart of the HFBR.

WBS 1.2.1.3 FY 97/98 Communications Plan: This Plan will contain all of the communications actions which will be taken for the remainder of FY97 through FY98, and will include developing goals and objectives, key issues and projects, and key messages, and identifying key stakeholder and support groups, and key media and public officials. The Plan will also outline methods for delivering the key messages to all parties. This Plan will be an integrated BNL/DOE Plan.

WBS 1.2.1.4 FY 97/98 Communications Staff Development Plan: This Plan

will contain specific actions to provide professional development training to the BNL Public Affairs/Community Relations staff.

WBS 1.2.1.5 Crisis Communications Plan: This Plan will be an update to the Public Information section (section 10) of the BNL Emergency Plan, and will specify the arrangements for communications support to a crisis/emergency at the Laboratory.

WBS 1.2.2 Communications Management System

This element contains the development of a set of operating procedures/standards that delineate the management processes that will be used by the Public Affairs/Community Relations organization in the future. In addition to communications-specific processes, personnel management, and performance-based management systems will also be developed and documented.

WBS 1.2.3 Communications Information Systems

This element provides for the development of a series of lists and databases which will serve as a key source of information on all constituencies and stakeholders. These databases will facilitate rapid dissemination of news about BNL activities, provide an opportunity for feedback, and ensure appropriate communications with each group and individual.

WBS 1.2.3.1 Stakeholder/Special Interest Group Database: This database will collect information on all stakeholders and special interest groups. This database will include contact information, preferred methods for sending/receiving information, and key issues for each stakeholder and special interest group.

WBS 1.2.3.2 Third Party Supporters Database: This database will collect information on members of the business, science, and educational communities who are interested in and/or affected by BNL's programs. Included will be contact information, and preferred methods for communicating.

WBS 1.2.3.3 Laboratory Volunteers/Communicators Database: This database will collect information on BNL employees and retirees who are interested in serving as volunteer communicators. Included will be contact information, other community affiliations, and public communications training level.

WBS 1.2.3.4 DOE External Communicators List: This will be a list of DOE personnel who can serve as communicators.

WBS 1.2.3.5 Science/Technical/Medical/Trade Media Database: This database will collect information on professional individuals and organizations with interest in the Laboratory's programs. Included will be contact information for reporters and editors, and preferred method of communicating.

WBS 1.2.3.6 General Media Database: This database will collect information on all media channels in the area of the Laboratory and/or having an interest in Laboratory programs. Included will be contact information for reporters and editors, and preferred method of communicating.

WBS 1.2.3.7 Community Newsletter Database: This database will collect information on newsletters published by community groups with an interest in BNL programs and activities. Included will be contact information, and process for submitting information for publication.

WBS 1.2.3.8 Federal/State/Local Elected Officials Database: This database will collect information on elected officials, to include contact information, key staffers, and area represented.

WBS 1.2.3.9 Regulatory Officials Database: This database will collect information on agencies and regulatory officials with oversight responsibility for BNL programs and activities. Included will be agency affiliation, contact information, and preferred method of communication.

WBS 1.2.3.10 DOE Public Affairs/Community Relations Counterparts List:

This listing will include contact information for Public Affairs/Community Relations personnel throughout the DOE complex.

WBS 1.2.4 Communications Resource Materials

This element contains reference information on BNL programs and activities, in a variety of formats including Questions and Answers, presentations, and databases. The resources developed under this WBS element will serve as a reference library for Public Affairs/ Community Relations staff, as well as Laboratory volunteer communicators, DOE communicators, and others.

WBS 1.2.4.1 Question and Answer Database: This database will compile a series of questions and answers on BNL programs, projects and activities, sorted by category.

WBS 1.2.4.2 Key Issues, Programs, and Projects Database: This database will collect information on programs and activities of the Laboratory of key

interest to various stakeholders. They will be sorted by category.

WBS 1.2.4.3 Key Messages by Stakeholder Group: This listing will link key messages regarding Laboratory programs with interested stakeholders.

WBS 1.2.4.4 Presentations/Information: Under this element, presentations, fact sheets, and other informational materials will be developed for use by all Laboratory and DOE communicators. Also included will be lessons learned and the results of opinion polling initiatives.

WBS 1.2.5 Training

This element includes training programs that will be available/provided to public affairs personnel, as well as BNL and DOE communicators. Training events planned are risk communications training, media training, training on making presentations, and strategic planning training.

BNL Management Systems Improvement Program

INTEGRATED SAFETY MANAGEMENT SYSTEMS INITIATIVE

Work Breakdown Structure Dictionary

WBS 1.3 Integrated Safety Management Systems

This element of the Project contains those activities that will be or already are underway to improve existing ES&H management systems or to institute new systems. In all cases, existing systems/programs will be the basis for building the integrated approach and management systems for ES&H. The results of these efforts will be systems for performance assessments, tracking of commitments and corrective actions, balancing priorities for effective work planning and execution, an improved systems for environmental management (monitoring, controlling and reducing environmental releases and impacts), accessible and applicable standards, and information flow and control.

WBS 1.3.1 ES&H Assessments

This item describes the process by which the current assessment activities will be reviewed, improved, documented and implemented. The activities to be executed include a review of existing internal programs for self-assessment, mentoring by DOE-EH in self assessment, formal documentation of any changes and improvements to the self-assessment program and interfacing the results of the assessment process with information systems, corrective actions/commitments tracking systems and planning processes. The item also includes the processes by which the Laboratory's self assessment activities and systems interface with external audits and assessments. A key activity is the improvements to management ES&H inspections by ensuring visibility, responsibility and accountability. The deliverables include: a plan to describe the goals methods, roles and responsibilities of BNL management and staff, appropriate procedures, documents, standards and guidelines for conducting various assessments, and methods for documenting assessment results and tracking assessment commitments/ actions.

WBS 1.3.2 Commitment and Corrective Action Tracking System (CCATS)

This element describes the development, piloting and implementation of a tracking and record-keeping system that will assist management in tracking, trending and root cause analysis, provide organizational and individual commitment and corrective action status as well as ES&H project backlog. The deliverables include: the system, a report on the system and system performance from the pilot program, data requirements, access guidelines, roles and responsibilities for maintenance and upkeep of the system, training materials for users, interfaces to other key ES&H Management Information System and planning programs.

WBS 1.3.3 Priority Assessment System

This work element consists of the activities the Laboratory will undertake to redesign the system used to prioritize ES&H activities identified through the assessment processes (WBS 1.3.1) and maintained in the Commitments/Corrective Action Tracking System (WBS 1.3.2). The activities include benchmarking prioritization processes at other DOE facilities, interaction with the ES&H Management Advisory Group to assure external cognizance and agreement to changes, development of a comprehensive Prioritization System Description Document and issuance of new guidelines/requirements. The deliverables include a report documenting the benchmarking activities, a comprehensive description of the process and new guidelines/requirements.

WBS 1.3.4 ES&H Budget Process

This item consists of activities that will lead to the redesign and streamlining of the ES&H budget process at the Laboratory. BNL will benchmark the budget process at other DOE multipurpose Laboratories, review BNL's current procedures for ES&H resource allocations for all types of money (capital, GPP, ARAM, AIP and operating), and propose an integrated process. The new budget process must interface with activities under WBS 1.3.3, the prioritization system, as well as activities that DOE is undertaking to improve the processes at the DOE level. The deliverables include a budget process description, a designation of roles and responsibilities, and guidelines for implementation.

WBS 1.3.5 Five Core Functions - Work Planning

Under this work element, the Laboratory will map its current programs, which use the five core functions of work planning and identify missing elements or gaps. Specific actions will be developed to ensure incorporation of these core functions into the planning and execution of activities at the Laboratory. The work covered by this element will be broken into two distinct areas, research and development work planning and routine work planning. The activities will include participation of the DOE EH mentoring group, benchmarking activities and programs at other DOE facilities and appropriate industries. The programs developed will be piloted and changed/improved based on the pilot results. The deliverables will include, reports describing the approach to be applied at BNL, work planning process descriptions, tailoring guidelines, and ES&H standard on work planning, a training needs description and a schedule for conducting an assessment of the effectiveness of implementation.

WBS 1.3.6 Training

Improvements to the overall BNL training program are included in this WBS element. The current status of the BNL training program will be documented. The site-wide training database will be brought on line, job specific training requirements will be completed, Auser@ training will be reviewed and improved, new training requirements

will be defined and courses developed and scheduled for coming on line. Roles and responsibilities for training as well as maintenance and updating of the database will be defined. The deliverables will be a complete description of the BNL training programs (course catalogue), clarified policy on training with roles and responsibilities for training and a fully implemented site-wide training database.

WBS 1.3.7 ES&H Standards and Requirements

This element of the work breakdown structure includes the activities required to arrive at the set of standards and requirements that are appropriate for the work conducted by the Laboratory. It includes the development of criteria for determining those standards that are applicable and appropriate for the Laboratory. This activity has a critical interface to the expectations and core values defined within WBS 1.1.1.1 and WBS 1.1.1.2. Key to the success of the element is the establishment of the process by which the standards are defined and accord is reached with the stakeholders. This activity is therefore critically linked to the communications initiative (WBS 1.2). A process similar to that used by LBNL or TJNAF will be adopted as part of this element. The deliverables include: a documented process and criteria for conducting the activity, including stakeholder involvement, a cross-walk of existing BNL standards to existing requirements (federal, state and local) and criteria, development of new or changes to existing standards, a documentation of new/revised training needs, and a system for promulgating the standards, policies or guidelines.

WBS 1.3.8 Key ES&H Management Information Systems Integration

This element includes the activities that must be undertaken to define key ES&H management information systems (incident reports, CCATS (WBS 1.3.2), training database, environmental information systems etc.) that are necessary tools for management. The activities include an identification of existing systems, a review of gaps in those systems, and recommendations for improvements and integrations of the data/information. The deliverables include a report detailing the current systems with recommendations for changes/improvements and integration of the systems; a definition of roles and responsibilities for use of the system as well as responsibilities for maintenance/improvements to the systems.

WBS 1.3.9 Environmental Management System

This work element encompasses the activities that the Laboratory will undertake to improve and integrate its environmental management systems. The activities included in this element will address all environmental media, processes which result in release to the environment and the control, monitoring and potential elimination of environmental releases. The systems currently used to monitor, report and analyze environmental impacts and plan future activities will be integrated. This element includes the results and actions to be taken in response to the EPA multimedia reviews and the BNL facility reviews, benchmarking of other DOE systems and the systems of similar industrial facilities. It also includes a detailed review of existing systems and

programs for monitoring, reporting and planning for environmental activities. Activities in this element must interface with the expectation and core values of the Laboratory (WBS 1.1.1.2), the ES&H standards/requirements (WBS 1.3.8) and the prioritizations element (WBS 1.3.3), the ES&H budget element (1.4.4) and the key ES&H Management Information Systems (WBS 1.3.8). The deliverables include a comprehensive report of systems in place and improvements needed to meet standards and requirements as well as the expectations of the Laboratory and the stakeholders.

Brookhaven National Laboratory

MANAGEMENT SYSTEMS IMPROVEMENT PROGRAM (MSIP)

Work Breakdown Structure

- 1.0 MANAGEMENT SYSTEMS IMPROVEMENT PROGRAM**
 - 1.1 LEADERSHIP INITIATIVE**
 - 1.1.1 Performance-Based Management**
 - 1.1.1.1 Core Values
 - 1.1.1.2 Mission and Vision Statements
 - 1.1.1.3 Core Competencies/Key Success Factors
 - 1.1.1.4 Strategic Plan
 - 1.1.1.5 Performance Measures
 - 1.1.1.6 Performance-Based Employee Evaluation/Reward System
 - 1.1.1.7 Management Development Program
 - 1.1.2 Organization**
 - 1.1.2.1 BNL Organization
 - 1.1.2.1.1 Directorate
 - 1.1.2.1.2 Leadership Council
 - 1.1.2.1.3 Associate/Assistant Directors
 - 1.1.2.1.4 BNL Organizations
 - 1.1.2.1.5 ES&H Committees
 - 1.1.2.2 External Resources
 - 1.1.2.2.1 ES&H Management Advisory Group
 - 1.1.2.2.2 Support Organization Peer Review Process
 - 1.1.2.2.3 DOE/EH Mentor Program
 - 1.1.2.2.4 Consultant Support
 - 1.1.3 Management Systems Improvement Program**
 - 1.1.3.1 Program Description
 - 1.1.3.2 Work Breakdown Structure
 - 1.1.3.3 Organization/Staffing
 - 1.1.3.4 Schedule
 - 1.1.3.5 Budget
 - 1.1.3.6 Management Plan

- 1.2 COMMUNICATIONS INITIATIVE**
 - 1.2.1 Communications Planning**
 - 1.2.1.1 Strategic Communications Plan
 - 1.2.1.2 HFBR Restart Communications Plan
 - 1.2.1.3 FY 97/98 Communications Plan
 - 1.2.1.4 FY 97/98 Communications Staff Development Plan
 - 1.2.1.5 Crisis Communications Plan
 - 1.2.2 Communications Management System**
 - 1.2.3 Communications Information System**
 - 1.2.3.1 Stakeholder/Special Interest Group Database
 - 1.2.3.2 Third Party Supporters Database
 - 1.2.3.3 Laboratory Volunteers/Communicators Database
 - 1.2.3.4 DOE External Communicators List
 - 1.2.3.5 Science/Technical/Medical/Trade Media Database
 - 1.2.3.6 General Media Database
 - 1.2.3.7 Community Newsletter Database
 - 1.2.3.8 Federal/State/Local Elected Officials Database
 - 1.2.3.9 Regulatory Officials Database
 - 1.2.3.10 Public Affairs/Community Relations Counterparts List
 - 1.2.4 Communications Resource Materials**
 - 1.2.4.1 Question & Answer Database
 - 1.2.4.2 Key Issues, Programs, Projects Database
 - 1.2.4.3 Key Messages by Stakeholder Group
 - 1.2.4.4 Presentations/Information
 - 1.2.5 Training**
- 1.3 INTEGRATED SAFETY MANAGEMENT SYSTEMS INITIATIVE**
 - 1.3.1 ES&H Assessments**
 - 1.3.1.1 Self Assessment
 - 1.3.1.2 Independent Assessment
 - 1.3.2 Commitment & Corrective Action Tracking System (CCATS)**
 - 1.3.2.1 CCATS Database
 - 1.3.2.2 ES&H Project Backlog
 - 1.3.3 Priority Assessment System**
 - 1.3.3.1 ES&H Project/Need Categorization Criteria
 - 1.3.3.2 ES&H Prioritization Process
 - 1.3.3.3 FY98/99 ES&H Plan
 - 1.3.4 ES&H Budget Process**
 - 1.3.4.1 ES&H Budget Process
 - 1.3.4.2 Roles and Responsibilities
 - 1.3.5 Five Core Functions**

- 1.3.5.1 Program Map/Gap Analysis
- 1.3.5.2 Research & Development-Work Planning
- 1.3.5.3 Routine Work-Work Planning
- 1.3.6 Training**
- 1.3.7 ES&H Standards and Requirements**
- 1.3.8 ES&H Management Information Systems Integration**
- 1.3.9 Environmental Management System**
 - 1.3.9.1 Gap/Needs Analysis
 - 1.3.9.1.1 EPA Phase I Multimedia Audit
 - 1.3.9.1.2 EPA Phase II Waste Process Audit
 - 1.3.9.1.3 EPA Phase III Management Systems Review
 - 1.3.9.1.4 Facility Environmental Reviews
 - 1.3.9.1.4.1 Historical Data Review
 - 1.3.9.1.4.2 Facilities Vulnerabilities
 - 1.3.9.1.4.3 Part 834 Review
 - 1.3.9.1.4.4 NYS Title V Review
 - 1.3.9.1.4.5 Legacy Waste Survey
 - 1.3.9.1.4.6 Review of prior Assessments
 - 1.3.9.1.5 Environmental Monitoring Program
- 1.3.9.2 Environmental Information Management System
- 1.3.9.3 Environmental Management System